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ABSTRACT

This curricular framework for the subject area section, Career Education for Grades K-12, is one of eight Montgomery County (Maryland) Public Schools (MCPS) Programs of Studies. A foreword discusses Curriculum and Instruction, Use of the Program of Studies, Curriclum Change and Modification of the Program of Studies, State and Federal Government in Relation to the Curriculum, Time Allocations and Graduation Requirements, Interagency Programs, and Availability of Instructional Materials. The Goals of Education adopted by the MCPS Board of Education are provided. A Point of View subsection includes reasons for studying the subject, general outcomes sought, ways in which the area of study is pursued, and relationship to other subject areas. The General Information subsection discusses how the subject fulfills the MCPS Goals of Education, how it is organized for instruction, subject area tests required by county or state, federal and state involvement, and information about fulfillment of graduation requirements. Description of Program, the largest subsection, describes the program and supporting courses and identifies instructional objectives for each. For grades 8, 10-12, it is divided into a List of Courses giving a brief view of subject offerings and Description of Courses giving course title, level, length, code, credit value, and prerequisites. A list of pertinent MCPS instructional guides is appended. (YLB)

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ED189472

PROGRAM OF STUDIES

CAREER EDUCATION, K-12

CE 026 203

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Department of Instructional Planning and Development
Montgomery County Public Schools
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FOREWORD

CURRICULUM AND INSTRUCTION

Curriculum may be defined as the general prescription for what teachers should teach and students should learn. In the Montgomery County Public Schools, the *Program of Studies* embodies this prescription. The *Program of Studies* includes the prescribed elements of programs and courses, including course titles, codes, instructional objectives, content descriptions, prerequisites, time allotments, credit values, and a point of view for instruction in each subject area. Based on the MCPS Goals of Education* these prescribed elements constitute the countywide framework within which schools develop and carry out instructional programs tailored to local needs. The relationship of curriculum to instruction in the MCPS, therefore, is that of the more general to the more specific. The *Program of Studies* provides specifications, sets limits, and indicates directions. It has direct and indirect implications for the selection and organization of content, patterns of learning and teaching, and evaluation of outcomes. However, the fulfillment of these specifications and implications is determined at the individual school level. The MCPS instructional program is, therefore, the interaction of the *Program of Studies* framework with the efforts of the individual schools. An appreciation of this interaction is necessary for an understanding of the place of the *Program of Studies* in the work of the schools.

The framework represented by the *Program of Studies* makes possible a unified countywide instructional system which at the same time permits the flexibility of programming required in a large and diverse county. At points, the *Program of Studies* may prescribe instruction very specifically. This may happen with regard to a socially sensitive topic such as sex education, or it may result from the rigorous requirements of establishing an instructional system in mathematics. But this degree of specification is unusual in the *Program of Studies* inasmuch as its level of prescription is generally represented by the instructional objectives it contains for all programs and courses. Instructional objectives are general statements of what the student should attain and are thus appropriate for all students taking a given program or course. Performance objectives are more specific statements of what the student should attain. Formulated or adopted by teachers in relation to the instructional objectives, performance objectives are used in planning classroom instruction. They are thus specific enough to form the basis of day-to-day work and of evaluation of the student's progress. In this movement from instructional to performance objectives, the teacher finds the guidance and the leeway to plan for students of a wide variety of needs and abilities. An examination of the illustrative performance objectives found in instructional guides and in teachers' lesson plans makes clear how great this range is.

An additional means of differentiating instruction which becomes increasingly important at the upper grade levels is provided by elective courses. The use of electives to provide for students of varying abilities and interests differs considerably from subject to subject. Almost all subjects have courses or course sequences which provide for enriched content and advanced or specialized work. Some provide for accelerated movement; some offer additional courses for advanced or specialized work; and some have differentiated paths among required and/or elective courses. The structure of each subject area and the ways by which it employs electives to provide for diverse student needs is indicated in the Grades 9-12 portion of the program description for each subject.

Information regarding each subject area appearing in the *Program of Studies* is presented, when appropriate, as two sections — one for Grades K-8 and one for Grades 9-12. For those subject areas spanning Grades K-12, both sections must be consulted for a full description of the program.

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*Adopted February 12, 1973 by the Board of Education of Montgomery County, Maryland

Each subject area section, whether K-8 or 9-12, has the following subsections: Point of View, General Information, Description of Program, and Instructional Guides.

The Point of View subsection includes reasons for studying the subject, general outcomes sought, ways in which the area of study is pursued in MCPS, and relationships to other subject areas. It also explains how students of varying abilities and interests in the subject are provided with differentiated performance objectives. An explanation of how study of the subject fulfills one or more of the MCPS Goals of Education* is included either in the Point of View subsection or as General Information. For those subject areas spanning Grades K-12, the Point of View is identical in both the K-8 and 9-12 sections.

The General Information subsection includes an explanation of how study of the subject fulfills the MCPS Goals of Education (unless this explanation has appeared in the Point of View) and how it is organized for instruction. Information is given about subject area tests required by the county or state and about federal and state involvement when it is important or distinctive for the subject area. Information about the fulfillment of graduation requirements, Grades 9-12, is also given in some detail for those subjects in which specific requirements exist. Other information specific to the subject also appears.

The largest portion of each subject area section is the Description of Program. It describes the program and supporting courses, identifies the instructional objectives for each, and includes any other prescribed or pertinent elements. For Grades 9-12, this subsection is divided into a List of Courses and a Description of Courses. The List of Courses gives a brief view of subject offerings at this level and serves as a table of contents to the subsection. The course descriptions, along with the narrative material and instructional objectives for each course, give course title, level, length, code, credit value, and prerequisites (if any).

At the end of each subject area section, there appears a list of pertinent MCPS instructional guides. This subsection is amplified to include existing annotated bibliographies, scope and sequence charts, or other such instructional materials in the subject which may have been prepared by MCPS staff.

USE OF THE PROGRAM OF STUDIES

The *Program of Studies*, as the curricular framework for the MCPS, promotes learning through a convergence of educational efforts. Students, teachers, administrators, parents/guardians, and other members of the community use the *Program of Studies* in a variety of ways to achieve the common goal of effective education.

A curriculum stated in terms of general (instructional) objectives informs the *student* of what the school intends him/her to learn and makes it easier to participate in setting specific performance objectives with teachers. Increase in learning efficiency is more apt to take place when a student knows the goal of learning. The student is also more apt to make a commitment to successful learning when at appropriate times he/she is able to select instructional methods and materials. Finally, the student's sense of achievement is reinforced when progress can be noted in the gaining of objectives.

The *teacher* who is familiar with the *Program of Studies* can be more effective in conferring with parents/guardians as well as being in a stronger position to establish specific teaching objectives, plan lessons, select instructional materials, and assess learning progress and teaching functions.

The *school principal* uses the *Program of Studies* as an administrative guide in its listing of approved courses, titles, and codes. The administrator can also deepen staff and community understanding for the

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total educational program as the *Program of Studies* is employed in teacher conferences, faculty and department meetings, and parent/guardian meetings. School effectiveness can be enhanced as the principal organizes people and resources to help learners gain the stated ends of instruction.

Learning outcomes and other information included in the *Program of Studies* give *parents/ guardians and other members of the community* information useful to them. They can better understand the instructional program for their elementary school children and advise secondary school youth in course selections. Knowledge of the *Program of Studies* also enables families and other community members to communicate more effectively with their children, teachers, and school administrators.

CURRICULUM CHANGE AND MODIFICATION OF THE PROGRAM OF STUDIES

The curriculum of any public school system must reflect the continual change of the society of which it is a part. As the MCPS curriculum changes, the *Program of Studies,* which establishes the MCPS curriculum in printed form, must be modified accordingly.

In MCPS, a proposal for a new or revised program or course can originate with any individual or group in the community or school system. The staff of the Department of Instructional Planning and Development encourages, coordinates, and assists the development of such proposals. In general, the staff has responsibility for modification of curriculum as required by state and local law and policy, and for continual assessment of the need for curriculum change. Procedures for effecting changes in curriculum and the *Program of Studies* are specified in MCPS Regulation 345-1, "Development and Approval of Curriculum and Supporting Materials." These procedures first state the involvement of community and school personnel in the initiation, development, review, and tryout of proposed curriculum changes; describe the role of the Council on Instruction as a reviewing and recommending body for the superintendent; and identify the final steps of approval by the superintendent and the Board of Education. The regulation also cites relevant portions of these Board of Education policies and Maryland public school laws upon which its procedures rest.

STATE AND FEDERAL GOVERNMENT IN RELATION TO THE CURRICULUM

The major influence of the Maryland State Department of Education upon local curriculum has traditionally been through the MSDE's specification of the requirements for graduation from high school. (These graduation requirements and other provisions for earning credit are summarized on page vii.) Two newer and equally important MSDE influences stem from a state educational accountability law* and the currently evolving Project Basic.**

The Maryland Educational Accountability Act imposes several requirements in its implementation of statewide accountability. These include the establishment of goals and objectives in, but not limited to, reading, writing, and mathematics at three levels — state, school system, and individual school. The goals and objectives at the system level must conform with those established at the state level, and those established by individual schools must conform with those of the local system and the state.

Also required by the Act is a school-by-school survey of the current status of student achievement in relation to established objectives, the development of programs by each school for meeting its own needs, and the establishment of evaluation procedures for determining the effectiveness of these programs. Regular reevaluation of programs, goals, and objectives is also a stipulation of the Act.

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*Article 77, Section 28a, of the *Annotated Code of the Laws of Maryland* was passed during the 1972 session of the Maryland General Assembly. The law has come to be called the "Educational Accountability Act."

**See "The Comprehensive Plan Maryland Competency-Based Prerequisites for Graduation," a publication of the Project Basic Office of the Maryland State Department of Education, 1978.

The state plan for implementation of the Accountability Act* specified that, effective the spring of 1974, the Iowa Test of Basic Skills and the Cognitive Abilities Test would be given to all pupils in Grades 3, 5, and 7. Use of these tests has given rise to concerns about the limitations of nationally norm-referenced tests and the small part of the MCPS curriculum that is measured by the ITBS. As a result, the Maryland State Board of Education has adopted a new schedule of assessment which includes the use of the Maryland Functional Reading Test and the Maryland Functional Mathematics Test in the secondary grades. These two tests, developed at the state level, are criterion-referenced tests. This means that they test specific skills or information without regard to how well similar student populations do on a given test item. Students who pass these tests in the ninth grade will not be tested again in connection with this program. Those who fail either test will receive appropriate instruction and retesting.

Through its Project Basic, the Maryland State Board of Education is reaffirming its responsibility for establishing statewide educational standards and stating its commitment to the development of behaviors basic to effective adulthood.** The state board specified five areas of human activity in which students should develop skills and attitudes for life-functioning. The five areas and their definitions as stated in the paper are:

A. Basic Skills — All people must be able to read, write, and calculate.

B. Survival Skills — Schooling should equip all public school youth with these kinds of fundamental skills: consumer, parenting, interpersonal relations, mechanical, and personal finance.

C. World of Work — Schooling should lead to securing employment upon graduation or post-secondary education. All public school youth should be made aware of the options and opportunities of the world of work without racial or sexual bias.

D. World of Leisure — Schooling should help the student become involved in creative and healthful lifetime activities.

E. Citizenship — Citizenship should include becoming involved in the electoral process, participating in local civic affairs, and understanding the system of justice.

To implement this action of the Maryland State Board of Education, State Superintendent of Schools David Hornbeck established the Project Basic Office. Its staff is currently involved in identifying the basic competencies in the five areas. It is also to design and develop instructional activities for the five areas of human activity, develop assessment measures to certify student acquisition of the specified competencies, and coordinate the statewide implementation of minimal competencies as a prerequisite to graduation. The project is to be fully implemented by 1982.

The impact upon the MCPS curriculum of the educational accountability and the competencies programs is as yet difficult to calculate. In one sense, the impact may not be great because the objectives of the accountability program (and, it is anticipated, the competencies of Project Basic) are to a large extent already included in the MCPS curriculum. References to the impact of the educational accountability law on specific portions of curriculum are included in the *Program of Studies* within the Information sections of the descriptions for Reading, English Language Arts, and Mathematics. On the other hand, these two state programs may have a significant impact on curriculum emphasis and

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*See the "Maryland Handbook on the Accountability Assessment Program, Maryland State Department of Education, Adapted to MCPS Test Administration Procedures," issued by the MCPS Department of Pupil and Program Appraisal, February 1, 1974.

**See *The Mission of Schooling*, Maryland State Board of Education, January 1977.

balance. They could affect time allotments within and among subjects and courses and thus affect even the definition of the subjects and courses themselves. How these statewide programs are developed and how MCPS students perform on the required evaluations will determine the impact of these programs upon curriculum. They are certain to have impact upon instruction and probably even more impact on evaluation procedures.

Federal and other state involvement in curriculum is mentioned in the descriptions of those subject areas where it is found, e.g., health education and some of the vocational education subjects.

TIME ALLOCATIONS AND GRADUATION REQUIREMENTS

In the following chart, time allocations are shown for subjects Kindergarten through Grade 8. The allocations are given in minutes per week, and school administrators are expected to use them in establishing program balance.

Subject	K	Grades 1-2	Grades 3-6	Grades 7-8
English Language Arts/Reading	200	700	475	225
Mathematics	75	200	225	225
Music	100	100	100	75
Physical Education	125	150	150	225
Science	75	125	225	225
Social Studies	75	125	225	225
Home Economics and Industrial Education	—	—	—	75
Electives				225
Total	750	[illegible]00	1500	1575

The MCPS Policy on the Middle School directs the school system to provide "a curriculum based on the developmental needs of pre- and early adolescents which places primary emphasis on acquisition of basic skills but also provides a wide range of exploratory and enrichment experiences."* Middle schools are organized into interdisciplinary teaching teams which provide opportunities for flexible student grouping and scheduling. Therefore, daily, weekly, and master schedules in middle schools will not be characterized by fixed time intervals for each subject area.

New standards for high school graduation were enacted by the Maryland State Board of Education on November 27, 1974, and became effective for students entering ninth grade in the fall of 1975. These standards thus become effective for all students in Grades 9-12 in the school year 1978-79. The standards define a unit of credit; specify credit requirements for graduation; and list several provisions for earning credit and several alternatives to four-year enrollment. MCPS Regulation 310-3, "High School Graduation Requirements," includes these state graduation requirements, the policy of the Montgomery County Board of Education with regard to them, and guidelines for their implementation.

*The MCPS Policy on the Middle School, adopted December 13, 1977

With exceptions specified under "Alternatives to Four-Year Enrollment," the MCPS student must, beyond the eighth grade, complete four years of approved study and earn a minimum of 20 credits. Twelve and one-half of these credits must be in the areas specified below. The additional seven and one-half elective minimum units may be chosen from offerings in any curricular area.

English Language Arts	4 credits
Social Studies	3 credits (One must be United States History; and one must deal with contemporary issues including local, state, and national governments.)
Science	2 credits
Mathematics	2 credits
Physical Education	One-half credit, required in Grade 9, and one-half credit sometime during Grades 10-12
Physical Activity*	Two semesters of physical activity sometime during Grades 10-12 (One-half credit of elective physical education fulfills the requirement of two semesters of physical activity.)
Health Education	One-half credit, required in Grade 9

The several provisions listed by the state for earning credit in addition to regular school day and school year programs are summer school, evening school, correspondence courses, tutoring, examination, and work study programs or experience outside the school. On pages 10 and 11 of MCPS Regulation 310-3, the Montgomery County Board of Education guidelines for each of these provisions are shown. The provision on credit by examination is being implemented as examinations appropriate to MCPS courses can be developed. During the 1977-78 school year, such examinations were given for Algebra 2; Trigonometry; and English, Grade 12.

The alternatives to four-year enrollment are an accelerated twenty-credit program; an early college admission program; early admission to approved vocational, technical, or other post-secondary school; and a job entry training program. To receive a high school diploma through any one of these alternatives, the MCPS student must receive approval for waiver of the four-year enrollment requirement. MCPS Regulation 310-3 includes the steps for requesting and receiving approval of the waiver. In addition to reading the regulation, which is available in all school offices and in school instructional materials centers, students and parents/guardians should consult local school counselors with regard to any of these provisions or those concerning earning credit outside the regular school day and year.

INTERAGENCY PROGRAMS

As has been stated, the *Program of Studies* prescribes the curriculum for all MCPS students by allowing for much differentiation of instruction. Instructional alternatives are created by varying content, assessment criteria, pace, and the pattern of courses the student takes. Beyond this differentiation, special instruction and other services are provided for handicapped students. In order to provide programs for all handicapped students, MCPS coordinates services with local and state agencies and other resources.

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*See pages 3-4 of the Physical Education Grades 9-12 section of the *Program of Studies*.

For those students who are most severely handicapped, including those who are placed outside of MCPS schools, the MCPS curriculum is adapted as required to meet the limitations of the students. Information about programs for these students is available from the Placement Unit of the Department of Interagency Programs, MCPS Office of Continuum Education.

AVAILABILITY OF INSTRUCTIONAL MATERIALS

The instructional guides listed at the end of each subject area section of the *Program of Studies* are on file in school Instructional Media Centers and in the Professional Library (formerly the Educational Materials Laboratory) at the Educational Services Center. They may be ordered from the Division of Supply Management, Department of School Services, MCPS Office of Supportive Services, which maintains a list of the guides stocked in its warehouse.

Occasionally, there will be a need in a subject area for publication of some supplemental instructional material such as a scope and sequence chart or a bibliography. If such exist, they are also listed at the end of the subject area section.

The Department of Instructional Resources, MCPS Office of Program Development, maintains files of approved textbooks and text materials and of approved films. A list of approved textbooks and text materials is published annually. Questions regarding this list should be addressed to the Division of Instructional Materials, Evaluation and Selection. A list of approved films is published periodically, and questions regarding it should be addressed to the Film Library of the Division of Instructional Materials, MCPS Department of Instructional Resources.

The Goals of Education

Adopted by the Board of Education — February 12, 1973

The goals of education for the Montgomery County Public Schools are set forth in this statement of public policy to guide the school system in developing, implementing, and improving educational programs for its students. This statement outlines those goals considered by the citizens of the county as most important for the education of their children in public schools and for which the citizens will hold the school system responsible and accountable.

The school system has the primary responsibility for some of these goals. For others, it shares that responsibility with the home and other community institutions.

The extent to which these goals can be realized will depend upon the endorsement by and continuing commitment of the school system staff, students, parents, and the community. With broad endorsement and wide support, the Montgomery County Public Schools will continue its development to serve its students and community in the most effective way possible.

Education is a process that encompasses the total experiences of each individual throughout a lifetime of formal and informal learning. The school program, as a keystone in this process, should provide opportunities and encouragement for students to acquire knowledge, to explore ideas, to ask questions, and to seek answers that will lead to sound and useful conclusions.

The probability of success motivates students to learn. Each school must create a program and maintain a climate in which every student has opportunities for success. Each individual is unique, and the school shall encourage that uniqueness. The school should help the student understand his [/her] values and the values of others.

The school program, while developing the skills of learning, should be based on the study of broad human concerns, flexible enough to deal with changing concerns and at the same time related to the needs, interests, and concerns of each student. The program should offer opportunities for decision-making. It should help the student develop the capacity to learn throughout his [/her] lifetime, to respond to and understand other human beings, and to accept full responsibility for the results of his [/her] actions.

Therefore, the Montgomery County Public Schools dedicates itself to provide the opportunity, encouragement, and guidance to make it possible for every child to attain the following goals of education:

ACADEMIC SKILLS

The fundamental responsibility of the school is to develop programs that enable each child to acquire those skills basic to all learning. The achievement of all other goals depends upon the success of the school in ensuring that each student, according to his [/her] own abilities, attain the following basic skills:

- **Reading:** The ability to read and comprehend written material and relate it to other knowledge
- **Composition:** The ability to write with precision, clarity, and acceptable usage, whether to inform, inspire, or persuade
- **Listening and Speaking:** The ability to listen attentively and with understanding and to speak with confidence and effectiveness, whether from written material or extemporaneously
- **Mathematics:** The ability to perform computations, to solve common problems of mathematics and logic, and to understand the structure of mathematics so it can be a useful tool in daily living
- **Study:** The development of basic study skills so that he [/she] may acquire knowledge efficiently
- **The Arts:** The development of some of the basic disciplines and skills in the performing and creative arts to be used throughout his [/her] life for communication, expression, and enjoyment
- **Observation:** The ability to identify and differentiate elements of the world around him [/her] as they are useful in personal, academic, and artistic pursuits

PHYSICAL DEVELOPMENT

Each person matures physically at a different rate and possesses differing capabilities. The school has the obligation to help each student:

- understand the biological functioning of his [/her] body
- make the best both of physical talents and limitations
- develop good health habits, skills, and interests to maintain his [/her] body in optimum condition throughout his [/her] lifetime

INTELLECTUAL DEVELOPMENT

In addition to acquiring academic skills, each individual should develop his [/her] intellectual capabilities to the fullest extent possible. Therefore, the school will encourage each pupil:

- to think creatively
- to reason logically
- to apply knowledge usefully
- to deal with abstract concepts
- to solve problems

THE INDIVIDUAL AND SOCIETY

Every person must learn to live in a society. The school must help each student develop an understanding of [people] and of how the individual depends upon others and they on him [/her]. This requires that each student gain:

- knowledge of himself [/herself] and the characteristics, needs, and desires he [/she] shares with others
- sensitivity to others and their ideas, and the ability to act responsibly in various situations
- the ability to function productively as a member of a group
- familiarity with the legal, moral, ethical, and cultural heritages of his [/her] and other societies
- knowledge of the various political systems and philosophies of the world

SCIENTIFIC UNDERSTANDING

[We] must exist in the natural world. The school must help each student understand nature's impact on [us] and [our] impact on nature. This requires that each student gain:

- knowledge of natural phenomena and their effect on [people]
- understanding of scientific advances and their part in modern technology
- understanding of the scientific method
- appreciation of the ways in which the application of scientific principles can improve the quality of life while preserving the natural order

AESTHETIC EXPRESSION

[We], to realize [our] full potential, must be able to sense and appreciate beauty in the world around [us], whether created by nature or by [people]. The school must help each student gain:

- knowledge of the nature of the creative performing arts
- experience with a wide variety of art forms
- a perspective for developing his [/her] own aesthetic criteria and tastes
- understanding of the contribution of the arts to human communication

CAREER DEVELOPMENT

Productive and satisfying work enriches [our lives]; and with increasing leisure time, many people will use various occupational skills for avocational purposes as well. The school must help each student gain:

- knowledge and appreciation of the wide variety and interrelationships of occupations in modern society
- opportunities to explore potential occupations in relation to personal aptitudes and interests, unrestricted by stereotypes of sex, race, or socio-economic level
- the knowledge, skills, and abilities that enable him [/her] to secure satisfying employment, embark upon further training and education in a chosen career field, and adapt occupational talents to changing job demands and opportunities

COMMITMENTS

The Board of Education and the staff of the Montgomery County Public Schools must create and maintain an educational environment that promotes the attainment of these goals by all students. Toward this end, therefore, the public schools make the following commitments to the citizens of Montgomery County:

- ***To attract and retain the most qualified and best trained staff possible through dynamic programs of recruitment, supervision, and continuing in-service training and staff development opportunities***
- ***To develop and implement a comprehensive and flexible instructional program to achieve the aforementioned goals and to provide the facilities, materials, and equipment needed to enhance the effectiveness of the program***
- ***To evaluate the effectiveness of the instructional program continuously, and regularly report the findings to students, parents, staff, and the community***
- ***To adopt new and different approaches when it is determined that they will contribute more effectively to the fulfillment of the goals***
- ***To encourage a continuing dialogue with the entire community, making every effort to communicate needs and achievements, and to be responsive to the needs and aspirations of the school community***
- ***To utilize facilities and staff, in cooperation with other agencies, in the development of preschool, community school, and adult education programs that will meet the continuing educational needs of all citizens***
- ***To provide an accountability procedure for informing county citizens of the objectives and costs of their school system and of reporting periodically on the educational investments made with their tax dollars***

CAREER EDUCATION, GRADES K-12

POINT OF VIEW

Career education is a continuing educational process used deliberately and collaboratively by school and community to provide individuals with opportunities to develop self- and career awareness; to explore a variety of career options; and to choose and prepare for appropriate, satisfying, and potentially changing careers.

MCPS has designed its career education program specifically to reach school system goals and to take advantage of its own capabilities.

Career education in MCPS is aimed at improving education for *all* students, Grades K through 12, by relating teaching and learning activities to career development. Career development is one of the seven MCPS Goals of Education.* The career development goal states:

> "Productive and satisfying work enriches . . . life; and with increasing leisure time, many people will use various occupational skills for avocational purposes as well. The school must help each student gain:
>
> - knowledge and appreciation of the wide variety and interrelationships of occupations in modern society
> - opportunities to explore potential occupations in relation to personal aptitudes and interests, unrestricted by stereotypes of sex, race, or socio-economic level
> - the knowledge, skills, and abilities that enable him [/her] to secure satisfying employment, embark upon further training and education in a chosen career field, and adapt occupational talents to changing job demands and opportunities."

The goal of career development provides the structure upon which the MCPS career education design is built. Although career development is one of the Montgomery County Board of Education's seven major goals of education, it is interrelated with the other six, which deal with academic skills; physical development; intellectual development; the individual and society; scientific understanding; and aesthetic expression.

Many students today see little relationship between the courses they are taking in school and the working world they will enter after leaving school. Career education is a bridge between school and the working world, where learning as well as self-knowledge must be applied.

The important role played by career education in the schools is four-fold:

- To assist students to learn about their interests, abilities, values, and aspirations
- To help students become aware of and appreciate the various occupations open to them
- To encourage students to explore various careers, especially those in which they have an interest
- To assist students in the development of decision making, job seeking, and job holding skills in order to improve their employment opportunities

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*approved February 12, 1973 by the Board of Education of Montgomery County, Maryland

GENERAL INFORMATION

Career education is the lifelong process of people learning about themselves and about work in society, and learning about how to use this knowledge in selecting careers that are both personally satisfying and beneficial to society. Because career education truly is a lifelong process, it is of equal importance to the home, school, and community.

A career is more than just an occupation or job. It is all the productive work, paid and unpaid, performed throughout a person's lifetime. This includes work at home and volunteer work in the community, as well as the work performed for an employer.

Career education is based upon concepts of career development, counseling, and learning theory. Drawing these concepts together in a coordinated program effort, career education was recognized as a priority in MCPS through a Board of Education resolution passed in 1974.

Two major components comprise career education in MCPS — an instructional component and a guidance component.

Instructional Component (examples)

1. Infusion of career education objectives at three levels — introduction, emphasis, and development — through a formal scope and sequence*
2. Exploratory programs such as Exploring Business Careers, Exploring Health Careers, and Fire Fighters
3. "Mini" exploratory opportunities which are accomplished through individual and group field trips and shadow programs at the elementary, middle, and junior high level
4. Cooperative education programs
5. Student intern programs, which provide students with ways to explore the community as a part of their school work

Guidance Component (examples)

1. A paraprofessional career information technician's providing occupational information to students, staff, and parents/guardians through a career information center located in senior high schools
2. A guidance course in career awareness, decision-making, and job-seeking skills
3. Group and individual career counseling provided as an essential part of the program by the guidance counselors
4. Implementation of Black Action Step 23, which requires a four-year educational plan beginning in eighth grade

*The Career Education Scope and Sequence Matrix K-12 is being field tested in 1978-79 and will be completed and incorporated into the *Program of Studies* in 1979-1980.

The success of an effective career education program depends upon the implementation of a broadly based plan, which will include:

- a supportive administration and involved cooperative staff working with parents/guardians and local community employers
- a staff knowledgeable in career education strategies — including administrators, counselors, media specialists, teachers, career information technicians, and career teacher coordinator and/or advisors
- a program based on adequate analysis and identification of student and community needs and resources
- local school staff support for career education efforts through area and central office administrative support
- a career teacher advisor or coordinator in every high school
- career information technicians and career information centers in every high school
- career information centers in middle/junior high schools, with supporting career education services at the area level
- support for infusion of career objectives into subject areas at the elementary and secondary level, accomplished through a scope and sequence Matrix which identifies at which level career objectives should be incorporated into the subject area and/or discipline, infusion of these career objectives occurring within designated grades, subjects, and courses at the local level K-12
- implementation of intern programs at the high school level
- implementation of exploratory opportunities at the middle/junior high level
- a local school education plan with specific career education objectives that provide for *all* students
- a plan for evaluating career education based on the school's stated objectives
- a local school and/or area program of in-service training and staff development activities
- a flexible schedule to allow students out-of-school exploratory use of community resources
- a collaborative working arrangement with the local employment community

At the elementary level, career related activities in each subject area are infused with subject matter objectives.

Through resource people, field trips, and a variety of actual experiences, teachers help students become aware of many kinds of work and workers. Self-awareness, plus exposure to occupations in the community, set the stage for future decisions about school programs and career directions.

Emphasis is placed on developing appropriate work habits and breaking down sex-role and minority stereotyping.

Following elementary school emphasis on career awareness, students in the middle school/junior high school begin to focus on career orientation and exploration. Fifteen clusters of occupations represent a full range of career opportunities, and teachers relate subject matter to the appropriate clusters.

Occupational Cluster Areas

Agri-business and natural resources
Business and office
Communications and media
Construction
Consumer and homemaking
Environment science
Fine arts and humanities
Health
Hospitality and recreation
Manufacturing
Marine science
Marketing and distribution
Personal services
Public services
Transportation

In the school and the community, students learn about the occupational areas of interest to them and discover the businesses, industries, and professions in which those occupations are found.

Exploration of the 15 career clusters at the middle school/junior high level is carried out by blending or refocusing career objectives into *all* the subject areas and providing students with opportunities to explore career clusters through special courses such as Exploring Vocations and/or participating in pertinent outside-the-school activities. Additional exploratory experience for middle/junior high students can be acquired working with business and industry through community organizations such as the Montgomery County Chamber of Commerce in the development of an "Adopt-a-School Program" in the Junior Achievement "Project Business" program, and the national Alliance of Businessmen's Prep Clubs.

From the career awareness and exploratory experience students have had at the elementary, middle/junior high levels, they will be in a better position to make educational and career decisions.

Students will continue career exploration and specialization in senior high, where career information specialists, teacher advisors and/or coordinators, and counselors will help them collect and analyze career information in the planning of appropriate programs.

Once career education has been fully implemented, 12th grade students will refine their skills in decision making, job seeking, and job holding; will acquire significant exploration experiences in several career fields through internships, cooperative education, and/or other types of exploratory activities; and will be able, on the basis of these opportunities, to use accurate up-to-date information about themselves and the labor market in choosing among several career options that can lead to a satisfying personal life.

For many years, vocational education programs have prepared students for employment and occupational training after high school; and this remains an important part of the total career education concept. Vocational education is a specialization phase within the MCPS design of career education and is offered to students through over 50 specialized programs in the areas of business education, industrial

education, home economics, and cooperative education. Separate sections of the *Program of Studies* describe each of these program areas, and the reader is directed to those sections for details on the vocational programs as a specialization phase of career education. The vocational education program also includes an exploration phase. Programs such as Exploring Business Careers, Exploring Health Careers, Fire Fighters, Hotel-Motel Management, and others help to carry our career exploration. The reader will find program descriptions of these exploratory programs in the Cooperative Vocational Education section of the *Program of Studies*.

Community involvement in career education is essential. There must be a collaborative effort as schools, government, business, industry, labor, and professions work together to extend education beyond the school's walls and to provide students a "community laboratory." Schools can barely suggest an on-the-job atmosphere; and they don't have the staff, facilities, or resources to give students a complete and realistic exposure to the work world. Individuals and organizations can supplement school activities by providing opportunities for real job experiences in work environments. Two formal links between the school system and the business community are the Citizens' Advisory Committee on Career and Vocational Education and the Industry/Education Committee co-sponsored by the Chamber of Commerce and MCPS. School-community collaboration also exists between MCPS and the construction and auto foundations.

Parents/guardians teach work values and shape attitudes toward career success by their own example; by explaining to their children and other students aspects of their own work; by encouraging community participation in career education programs; and by stimulating community support for the programs.

The development of career education, effected systematically since 1971-72, has included conceptualization, program design, in-service training of staff, development of pilot programs such as internships; and systemwide implementation is scheduled for completion in 1982.

The Infusion Process — The Development of a Scope and Sequence Matrix K-12

One part of career education for which every subject teacher has responsibility is the infusion of career education student outcomes into designated subject areas by assigned grade level and specified unit and/or course.

The formal development of a scope and sequence matrix to facilitate this infusion of career education outcomes into the total MCPS curriculum, K-12, is in process. The four goals of career education appear below, with suggested student outcomes. Identification of where these outcomes should be placed in the K-12 curriculum at three levels of sophistication (i.e., introduction, development, and emphasis) is also in process. This process of designating career education student outcomes by grade, subject area, and unit or course will be field tested when completed. Revisions will be made based on the field test, and the scope and sequence matrix will then be added to the career education section of the *Program of Studies* to enable each teacher to know those career education objectives for which she/he has responsibility.

CAREER EDUCATION GOALS AND STUDENT OUTCOMES

Goal I: To help students learn about their interests, abilities, values, and aspirations

1.01 Show evidence of self-understanding.

1.02 Examine interests, abilities, and values.

1.03 Describe work activities which are satisfying.

1.04 Determine one's strengths and limitations as related to tentative career choices.

1.05 Determine that individuals have unique characteristics.

1.06 Describe ways in which society depends on unique characteristics of individuals.

1.07 Describe the relationship of interests, abilities, and values to educational and career direction.

1.08 Determine factors which influence career options.

1.09 Define different work value systems and contrast these with a personal work value system.

1.10 Clarify personal values as they relate to career areas of interest.

1.11 Explain how mental and physical health affect performance.

Goal II: To help students become aware of and appreciate the various occupations open to them

2.01 Determine jobs necessary to maintain a community.

2.02 Demonstrate how satisfaction can be derived from a product one makes or a service one provides.

2.03 Analyze the skills required for certain jobs.

2.04 Demonstrate the importance of obtaining employability skills.

2.05 Demonstrate a knowledge of employment trends.

2.06 Analyze why retraining may be necessary at different intervals in one's career.

2.07 Identify some jobs available today that may not be available in the future.

2.08 Describe how work can influence a person's feeling about himself/herself.

2.09 Analyze how work contributes to social needs.

2.10 Determine that within each of the occupational clusters there is a wide range of occupations.

2.11 Determine occupations that fulfill personal and social needs.

2.12 Analyze a variety of work settings and tasks performed.

2.13 Describe social forces that have influenced the labor force.

2.14 Determine sources of stereotyping.

Goal III: To help students explore those occupations in which they have an interest

3.01 Design a plan to research a tentative career choice.

3.02 Determine the characteristics of various jobs and/or careers in career clusters of interest.

3.03 Examine occupations within the school and the local community through observations of individuals in careers that relate to identified interests.

3.04 Analyze careers by participation in a real or simulated exploration activity.

3.05 Analyze the relevancy of learning an accademic or vocational skill and the application of that skill on the job.

3.06 Outline a tentative educational plan by selecting appropriate academic and vocational courses.

3.07 Examine entry level criteria for specific jobs in occupational clusters of interest.

3.08 Determine community agency services which help keep career plans current and viable.

Goal IV: To help students develop decision-making skills, job-seeking skills, and job-holding skills

4.01 Examine the components of the decision-making process.

4.02 Use resources available for career planning.

4.03 Apply information about abilities, interests, values, and aspirations in developing a tentative and flexible career plan.

4.04 Evaluate how a career choice can affect life style.

4.05 Relate education and training to employability.

4.06 Determine that changing job characteristics may require retraining.

4.07 Examine learning experiences which influence the formulation of an individual career plan.

4.08 Apply the components of the decision-making process to tentative career choices.

4.09 Demonstrate job-seeking competencies; e.g., writing letters of application, writing resumes, interviewing, testing, completing job applications, arranging and preparing for interviews, identifying acceptable interview behavior, identifying job-finding sources, acquiring a social security number, etc.

4.10 Evaluate when to accept and when to reject employment.

4.11 Recognize job-holding competencies.

4.12 Develop positive work attitudes for career success.

4.13 Demonstrate human relations skills which affect job performance.

4.14 Identify how conditions of employment and expectations of employers vary.

Career Education in Montgomery County Public Schools

Definition of Career Education

Career education is defined in the State of Maryland as "a continuing educational process used deliberately and collaboratively by school and community to provide and assist all individuals with opportunities to develop self and career awareness, explore a variety of career options, and choose and prepare for appropriate, satisfying and potentially changing career roles."

MCPS Career Education Has Two Components.

Guidance Component

Regular Guidance Services

- Individual Counseling
- Group Counseling
- Career and College Counseling
- Administering and Interpreting of Interest, Inventories, Aptitude Tests, etc.
- Educational and Career Planning

Additional Guidance Services To Support Career Education

- Career Information Resource Center
- Black Action Step 23 — Four-Year Educational Plan
- Career Awareness, Decision-Making Course
- Explorer Scout Surveys

Instructional Component

Infusion of career education learner outcomes into curriculum at designated grades and subjects K-12 (See career education scope and sequence matrix.)

Career Education Courses and/or Units in Junior High

- Exploring Vocations (8th grade)
- Exploring Business Careers (9th grade)

Career Education Courses in High Schools

- Career Awareness, Decision-making and Job-seeking Skills
- Fifty vocational courses provide specific job entry level skills as a part of the career specialization phase of career education. These programs are in areas of business, technical and vocational, home economics, and cooperative education. (See *Program of Studies.*)

Internships

- Individual internships as a part of any subject area (*See Intern Administrative Handbook.*)
- Executive Internship in Public Administration
- Child Development
- Kindergarten Aides
- Exploring Health Careers
- Fire Fighters I and II

Locally Produced Curriculum

- Careers in Foreign Language
- Careers in Home Economics

Commercially Produced Materials

Business/Industry/Government Materials and/or Efforts

- Project Business — Junior HS
- Adopt-A-School — Junior HS
- Senior High Junior Achievement
- Prep Clubs

DESCRIPTION OF PROGRAM

List of Courses

Exploring Vocations — Grade 8

Career Awareness, Decision-making and Job-seeking Skills — Grades 10, 11, 12

General Internships — Grades 11, 12

General Internships in Public Administration — Grades 11, 12

For the following internships, see appropriate section indicated in the *Program of Studies:*

Exploring Health Careers ..... Cooperative Vocational Education

Fire Fighters I and II ..... Cooperative Vocational Education

Kindergarten Aides ..... Multidisciplinary Programs

Child Development ..... Home Economics

Course Description

Exploring Vocations — Grade 8
7811 1 semester

This course provides students with elements of educational planning and tentative career choices. After identifying their interests, aptitudes, and preferences, students will outline a tentative educational plan for accomplishing their career goals.

Upon completion of Exploring Vocations, the student should be able to:

- explore his/her interests, abilities, values, and aspirations
- examine the components of the decision-making process
- analyze resources available for educational and career planning
- apply information about abilities, interests, values, and aspirations in developing a tentative and flexible educational plan
- enumerate future employment options available and explain the preparation and education needed for fields of interest
- design a plan to research tentative career choices
- determine that within each occupational cluster there is a wide range of occupations requiring various types of education and/or training
- determine the characteristics of various jobs and/or careers in clusters of interest
- analyze career potential by participation in a real or simulated short-term exploration activity
- outline a tentative educational plan by selecting appropriate academic and vocational courses in collaboration with counselors and parents
- examine the fact that our country has a mixed economy involving both the private and public sector

Internship — Grades 11, 12*

7810	1 year	1 credit
7815	1 year (double period)	2 credits

A student internship is a non-paid career education assignment by which a student is released from class/school for part or all of a school day or part of the school year, in order to become actively involved, for an extended period of time, in business, government, industry, research, or social service. The internship complements the student's school program and is pursued under the supervision and the cooperation of the school. Students who could benefit from such an intern program include young people who wish to learn about society directly; to translate their idealism into action; to partake of the excitement and potential for learning in the Washington metropolitan area; to test out particular careers; and to discover and develop themselves in a more independent learning environment.

Upon completion of Internship, the student should be able to:

- identify a career area of interest
- identify the requirements and characteristics of a selected career
- determine whether a career is compatible with his/her skills, aptitudes, values, and interests
- identify competencies and limitations in selected career areas
- develop and apply problem-solving skills to on-the-job situations
- set priorities, plan use of time, and adhere to an organized schedule
- identify goals and values and describe how these affect career decisions
- demonstrate good work habits such as promptness, dependability, and accuracy

Executive High School Internship Program — Grades 11, 12

2325	1 semester	3 credits in social studies ½ credit in English

The Executive Internship Program is designed to give juniors and seniors the opportunity to spend one full semester working as a special assistant to an executive or administrator in the Washington metropolitan area. The program introduces students to the concepts of management and delivery of services through close association with community leaders, professionals, and residents. Interns refine their social and intellectual skills by relating to a variety of adults, writing reports, analyzing policy issues, helping organize community-based programs, and actively initiating their own learning experiences. Interns gain specific knowledge about budget, personnel administration, organizational development, program planning and implementation, delivery of services to clients, and evaluating program results and policies. The program gives the student a way to explore career options.

During the semester, interns must maintain regular attendance by spending four days a week (Monday through Thursday) with their sponsor; keeping a daily log analyzing what has been learned; attending Friday morning management and administration seminars; designing and presenting a special project demonstrating what he/she has learned; and developing a summary report to present at the conclusion of the program.

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*Internship — Science

3990	1 semester
3991	1 year
3992	1 year

These code numbers should be used when the internship involves a laboratory or field experience in scientific research and technology.

Interns receive 3½ credits during the semester. Three of these credits are in "Executive Internship" in the area of social studies; and one-half credit is in English, to be counted as part of the junior or senior English requirement. No letter grade is given for the three credits in "Executive Internship" nor for the one-half credit in English unless the student makes special arrangements to take his/her English as an independent study course.

Upon completion of the semester of Internship, the student will be able to:

- develop a more accurate understanding of organizations and those who manage and administer them
- analyze basic elements of organizational structures
- contrast the formal and informal roles played by various employees in line and staff positions
- experience the executive decision-making process
- discern the importance of establishing priorities and strategies for change
- detect constraints within which an executive or manager must function (including time, budgetary, and resource limitations)
- increase the ability to speak with confidence and maturity
- increase her/his own skills and abilities in defining present and future career goals
- increase her/his sense of self-confidence

Career Awareness, Decision-making and Job-seeking Skills — Grades 10, 11, 12
7812 1 semester ½ credit

Career Awareness, Decision-making and Job-seeking Skills is designed to acquaint students with a process which will enable them to make wise career and educational choices. They will learn how to research careers and educational options; how to analyze their own interests, aptitudes, and values; and how to look for and apply for a job.

Upon completion of this course, the student will be able to:

- formulate a definition of work
- define the terms *career, occupation, job, life-style, leisure*
- explain why career development is a lifelong process
- identify her/his interests, aptitudes, talents, skills, values, and personal characteristics
- recognize that individuals differ in their interests, aptitudes, talents, skills, and values; and explain the importance of these differences
- recognize the fact that interests, skills, and values are part of a lifelong process constantly changed and influenced by life experiences and motivations
- demonstrate skill in obtaining and evaluating specific career information
- indicate how career choice and life-style affect each other
- describe how education/training affects career options and/or life-style
- demonstrate skill in obtaining and evaluating educational information
- describe how changes in the environment and society affect career options
- apply knowledge of personal characteristics to job satisfaction and career options
- demonstrate skill in obtaining and evaluating educational information
- describe how changes in the environment and society affect career options
- apply knowledge of personal characteristics to job satisfaction and career options
- demonstrate ability to make decisions using the decision-making process, including the formulation of tentative action plans for several career options

- explain how "bargaining positions" are influenced by personal qualifications and supply and demand of the labor market
- identify available information and sources in looking for specific employment and explore sources in developing a plan for utilization
- acquire job-seeking skills
- evaluate when to accept and when to reject employment
- identify job-seeking skills

MCPS INSTRUCTIONAL GUIDES AND LOCALLY DEVELOPED MATERIALS TO SUPPORT CAREER EDUCATION

Orientation Materials

Videotapes

#1 — Career Education — An Emerging Concept

#2 — Career Education — A Changing Focus

Slide/Tape Presentations

#1 — A Systematic Approach to Career Education — An Overview of Career Education in MCPS

#2 — Careers in Foreign Language

#3 — Career Opportunities in Physical Fitness and Health Related Fields

Bulletins — Public Information

Program Planning and Evaluation Paper

Document which explains overall career education design in MCPS and budget implications

What You Wanted To Know About Career Education in MCPS. Bulletin giving answers to the most frequently asked questons about career education in MCPS

Instructional Guides

Career Education Through Home Economics

Careers in Foreign Language

Commercial Art

Consumer Math

Cooperative Office Education

continued ——→

Cooperative Work Experience

Driver Education

Exploring Business Careers

Exploring Health Careers

Firefighters, I and II

Hotel-Motel Management and Services

Instructional Activities and Resources for Child Development

Instrumental Music Teachers' Handbook

Student Aides for Kindergarten Teacher

Curriculum Design and Handbooks

Administrative Handbook on Internships

Instructional Objectives for Media

Research and Communications Skills: Suggested Scope and Sequence Chart — 1975